Work Order ID 88523

August-02-12 11:49:17 AM

88523

Item ID: D3477-3 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Tube

Start Date: 7/27/12 **Start Qty:** 2.00 *2*

Required Date: 8/24/12 **Req'd Qty:** 2.00 *2*

Reference:

Cust Item ID:

Customer:

Approvals: **Process Plan:** _____ **Date:** 12-09-13 **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	**Revision Nbr**								
D3477	Rev B								
100	SHEAR	0.00							
100									
Shear	**Memo**	0.00							
Shear	Cut as per Dwg D3477 (13.40" X 2.04")								
304.018									
110	Small Fab	0.00							
110									
Small Fab	**Memo**	0.00							
Small Fab	1-Deburr 2-Roll as per Dwg D3477 3-Tack Weld as per Dwg D3477								
120	QC9- Inspect visual per QSI004- Fusion Welds	0.00							
120									
QC	**Memo**	0.00							
Quality Control									

SCRAP

2 0 JM 12-10-19

Scrap will be outsourced from now on

12/01/23

DAS 30 8-30

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
Large Fab ☐	Composite ☐	Supplier ☐	

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped.
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

_____

_____

_____

Item ID: D3477-3 **Accept** *N900040100* **Setup Start** *NS1*
Revision ID: **Stop** *NS2*
Item Name: Tube

Start Date: 7/27/12 **Start Qty:** 2.00 *2*
Required Date: 8/24/12 **Req'd Qty:** 2.00 *2*
Reference:

Cust Item ID:
Customer:

Run Start *NR1*
Stop *NR2*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC5- Inspect part completeness to step on W/O	0.00							
130									
QC	**Memo**	0.00							
Quality Control									
140	Identify as per dwg & Stock Location:_____	0.00							
140									
Packaging	**Memo**	0.00							
Packaging									
150	QC21- Final Inspection - Work Order Release	0.00							
150									
QC	**Memo**	0.00							
Quality Control									

11-4-01-23

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

- Skid-tube ☐
- Machining ☐
- Thermoforming ☐
- Large Fab ☐
- Crosstube ☐
- Small Fab ☐
- Finishing ☐
- Composite ☐
- Water Jet ☐
- Prod. Eng. Coor. ☐
- Rec/Store/Packaging ☐
- Supplier ☐
- Engineering ☐
- Quality ☐
- Other ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data										
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped.
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

_____

_____

_____

Picklist Print

August-02-12 11:49:16 AM

Work Order ID: 88523
Parent Item: D3477-3
Parent Item Name: Tube
Start Date: 7/27/12 **Required Date:** 8/24/12
Start Qty: 2.00 **Required Qty:** 2.00

Comments: IPP Rev:A New Issue 06-02-07 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S26GA 304/316 0.018 SHEET		Purchased	No			100	sf	71.8500	**0.19**	**0.38**			JM 12-10-19

Location	Loc Qty	Loc Code	
MAT020	71.85		
117798	71.85		

122753 122753

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear

- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General

- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio
- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions
- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge
- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

_____

_____

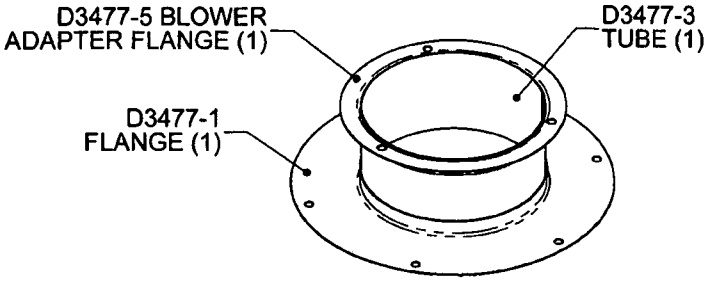
_____

DART

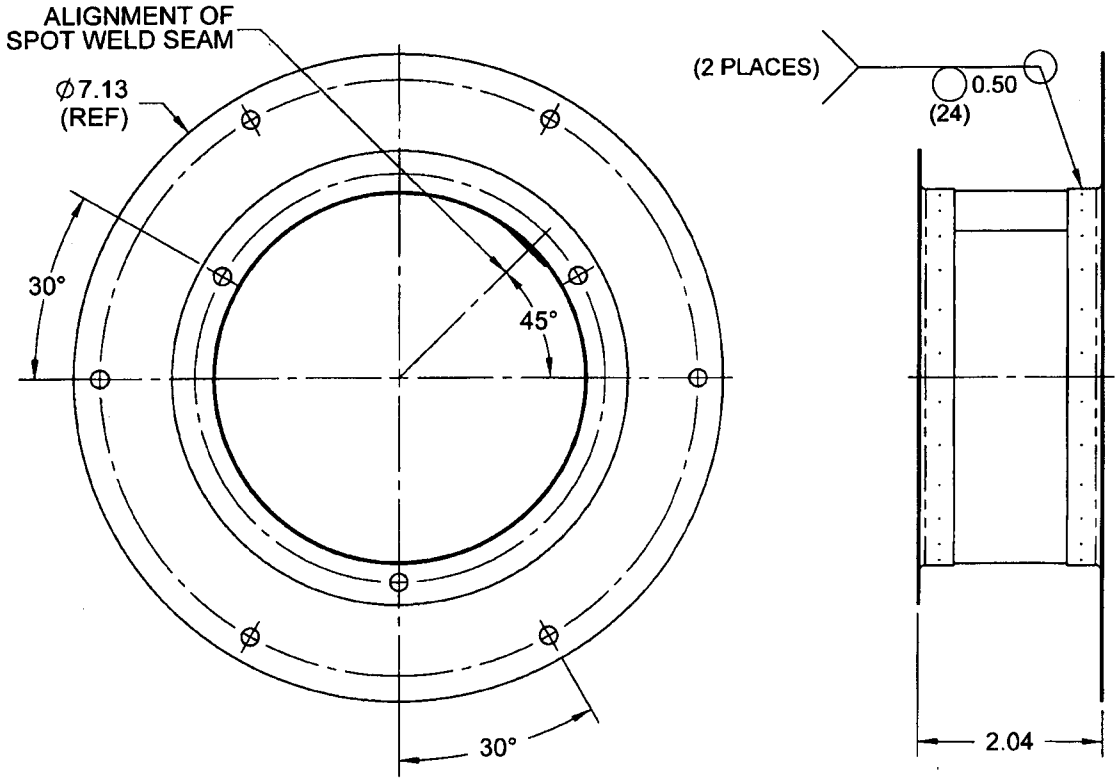
DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED RH	APPROVED	DRAWING NO. D3477	REV. B SHEET 1 OF 4
DATE 08.12.19		TITLE BLOWER INLET ADAPTER	SCALE 1:2

A	05.12.09	NEW ISSUE
B	08.12.19	⌀3.40 & ⌀4.1 WERE ⌀3.600 & ⌀4.14 (SHT 2 & 4); ADD MFG NOTE AND TOL (SHT 3); MATL SPEC WAS MIL-S-5019

RELEASED
8/01/20 MM



88523
pd 12-08-13



D3477-041 BLOWER MOTOR INLET ADAPTER

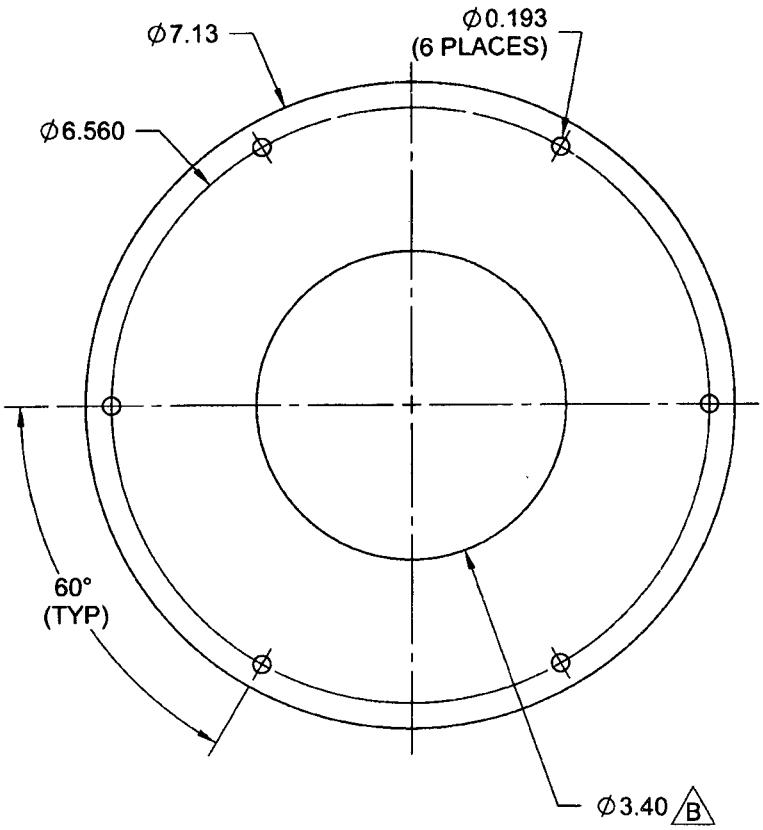
NOTES:

1) SPOT WELD PER DART QSI 004
2) FINISH: NONE
3) IDENTIFY WITH DART P/N D3477-041 USING FINE POINT PERMANENT INK MARKER
4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
5) ALL DIMENSIONS ARE IN INCHES
6) BREAK ALL SHARP EDGES 0.005 TO 0.010

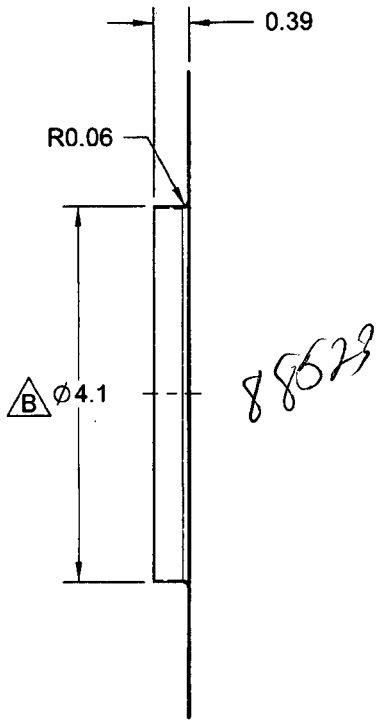
QTY -041	P/N	DESCRIPTION
X	D3477-041	BLOWER MOTOR ASSEMBLY
1	D3477-1	FLANGE
1	D3477-3	TUBE
1	D3477-5	BLOWER ADAPTER FLANGE

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3477	REV. B SHEET 2 OF 4
DATE 08.12.19		TITLE BLOWER INLET ADAPTER	SCALE 1:2

RELEASED



D3477-1F FLANGE
FLAT PATTERN



D3477-1
FLANGE

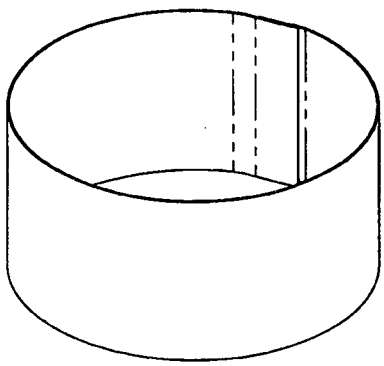
NOTES:

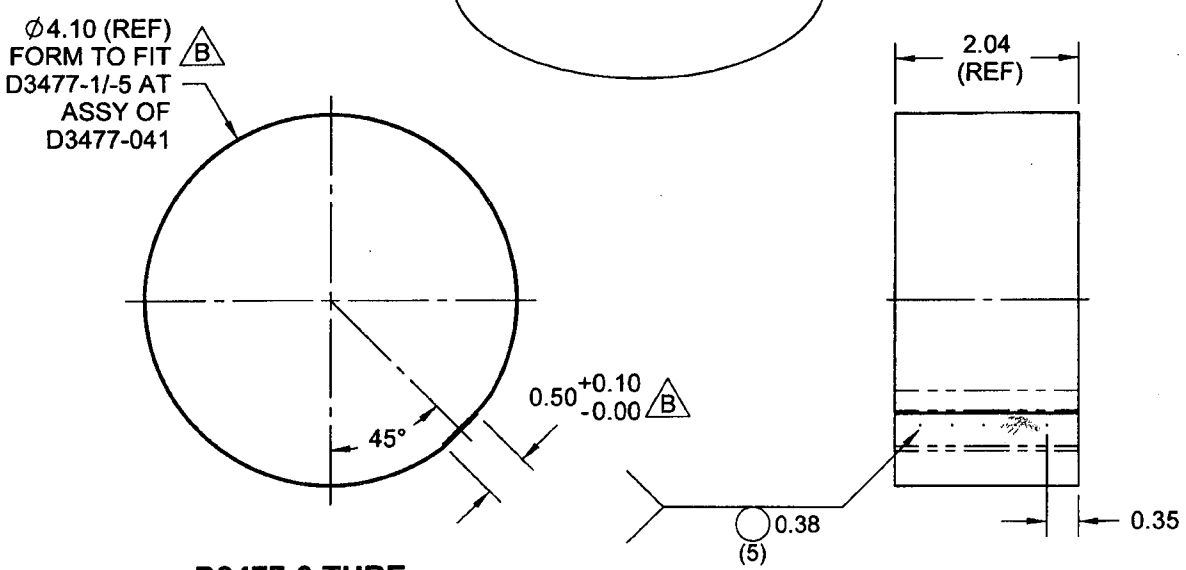
1) MATERIAL: AISI 304/316 SS SHEET PER MIL-S-5059 (ANNEALED) 2B FINISH B
OR AMS 5513/5524, 26 GAUGE SS (0.018 THICK)
(REF. DART SPEC. M304S26GA)
2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
3) ALL DIMENSIONS ARE IN INCHES
4) BREAK ALL SHARP EDGES 0.005 TO 0.010

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED PB	APPROVED	DRAWING NO. D3477	REV. B SHEET 3 OF 4
DATE 08.12.19		TITLE BLOWER INLET ADAPTER	SCALE 1:2

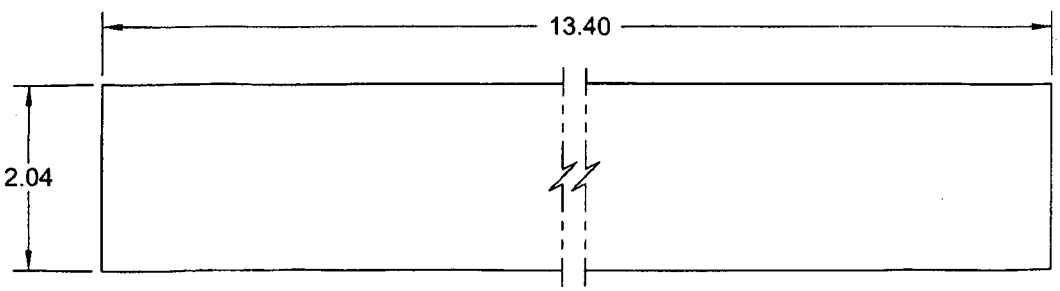
RELEASED
9/12/32 MP

8523





D3477-3 TUBE



X2

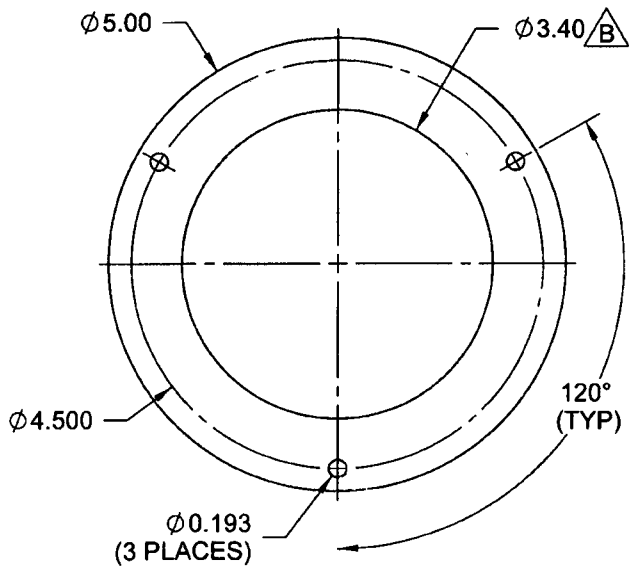
D3477-3F TUBE FLAT PATTERN

NOTES:

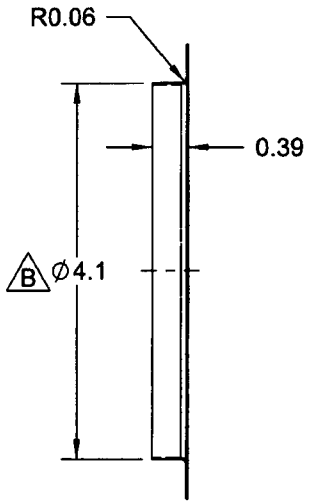
1) MATERIAL: AISI 304/316 SS SHEET PER MIL-S-5059 (ANNEALED) 2B FINISH B
OR AMS 5513/5524, 26 GAUGE SS (0.018 THICK)
(REF. DART SPEC. M304S26GA)
2) WELD PER DART QSI 004
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES
5) BREAK ALL SHARP EDGES 0.005 TO 0.010

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3477	REV. B SHEET 4 OF 4
DATE 08.12.19		TITLE BLOWER INLET ADAPTER	SCALE 1:2

RELEASED
21/6/30 MF



D3477-5F FLAT PATTERN



D3477-5 BLOWER ADAPTER FLANGE

NOTES:

1) MATERIAL: AISI 304/316 SS SHEET PER MIL-S-5059 (ANNEALED) 2B FINISH B
OR AMS 5513/5524, 26 GAUGE SS (0.018 THICK)
(REF. DART SPEC. M304S26GA)
2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
3) ALL DIMENSIONS ARE IN INCHES
4) BREAK ALL SHARP EDGES 0.005 TO 0.010